

NORTH DAKOTA FLEAS. VIII. TWO NEW GEOGRAPHIC RECORDS FROM THE NORTHERN FLYING SQUIRREL (SIPHONAPTERA)¹

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ABSTRACT: *Opisodasys pseudarctomys* (Baker) and *Epitedia faceta* (Rothschild) are reported for the first time from North Dakota on *Glaucomys sabrinus* (Shaw).

Since 1937 a total of 44 species or subspecies of fleas have been reported from North Dakota. This paper adds two species to that list.

On October 29, 1981, a freshly killed northern flying squirrel, *Glaucomys sabrinus* (Shaw), from the city of Grand Forks (Grand Forks County) was brought to my laboratory. It harbored a large population of ectoparasites, including mites, larval ticks, mallophagans and three species of fleas. The latter were identified as *Orchopeas caedens* (Jordan) (1 ♂, 2 ♀), *Opisodasys pseudarctomys* (Baker) (2 ♂, 2 ♀) and *Epitedia faceta* (Rothschild) (5 ♂, 3 ♀). Voucher specimens of the fleas are in the Invertebrate Museum, University of North Dakota.

Orchopeas caedens is common on red squirrels throughout their North American range, and occasionally occurs on other sciurids. The other two species of fleas are true parasites of flying squirrels and constitute new records for North Dakota. *Opisodasys pseudarctomys* has a transcontinental distribution (Lewis 1974), and is known regionally from north-central Minnesota (Benton, et al. 1971). *Epitedia faceta* has not been previously reported west of Pennsylvania (Benton 1980). This range extension of 1500 km is interesting since flying squirrels from Manitoba, Minnesota, Iowa, Wisconsin, Michigan, Illinois and Ohio have been examined for fleas in other studies. It is tempting to view the local occurrence of *E. faceta* as a disjunct population reflecting post-glacial movement of flying squirrels. However, *E. faceta* is primarily a nest flea with adults present only in the colder months. Since flying squirrels and their nests are seldom collected at such times, it may be that *E. faceta* occurs throughout the intervening area, at least across southern Canada. Apparently, there are not specimens or reports to substantiate this hypothesis, but winter collections of flying squirrel nests would probably resolve the question.

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LITERATURE CITED

- Benton, A.H. 1980. An atlas of the fleas of the eastern United States. Marginal Media, Fredonia. 177 pp.
- _____. O.R. Larson and B.A. Ven Huizen. 1971. Siphonaptera from Itasca State Park region. J. Minn. Acad. Sci. 37: 91-92.
- Lewis, R.E. 1974. Notes on the geographic distribution and host preferences in the order Siphonaptera. Part 3. Hystrihopsyllidae. J. Med. Ent. 11: 147-167.

SOCIETY MEETING — FEBRUARY 4, 1983

The twelve members and twenty-one guests who attended the February 4, 1983, meeting of the American Entomological Society at the Academy of Natural Sciences of Philadelphia were treated to an absorbing talk by Dr. Paul W. Schaefer. Dr. Schaefer, an entomologist at the USDA Beneficial Insects Research Laboratory in Newark, Delaware, spoke on "Exploring for Parasites and Predators of the Gypsy Moth in Mainland, China, 1982." His illustrated talk included a rich mixture of geography, culture, and entomology.

Dr. Schaefer reported that in China the gypsy moth (*Lymantria dispar*) is not considered to be a major forest pest and defoliation rarely occurs. The populations there are kept under control by natural parasites and predators. Nevertheless, Dr. Schaefer and two other American forest entomologists had no difficulty finding the gypsy moth throughout northeastern China where they travelled and were successful in identifying a large number of its natural enemies. *Glyptoapanteles liparidis* was found to be the most important parasite. Several differences between the Chinese and American populations of gypsy moths were illustrated by Dr. Schaefer. In China the larvae are more brightly colored with red and yellow and they frequently retreat under rocks in the day time. The adult males are darker and females can fly. This latter observation was documented by photographs of large concentrations of egg masses around outdoor lights. The Academy of Forestry of the People's Republic of China, who sponsored Dr. Schaefer's visit, provided the utmost in hospitality. Although Chinese officials did not permit live insects to leave the country, Dr. Schaefer feels that his visit was a successful step toward locating natural enemies of the gypsy moth that could eventually be useful in controlling gypsy moth populations in this country. A small collection of Far Eastern insects was displayed after the talk.

In the period for notes of local entomological interest, Dr. Kenneth Frank inquired if anyone had observed the Ailanthus silk moth in Philadelphia in recent years. Joseph Harrison responded that he had observed a colony about six years ago but that the populations are much reduced compared to about fifty years ago, partly due to loss of the host tree. Dr. Paul Schaefer reported a record of sorts. A gypsy moth egg mass found in the University of Delaware woodlot contained 1,038 eggs. Typically large egg masses in regions of an expanding populations may contain about 700 eggs.

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